

REMARKS

After entry of the instant Amendment, claims 1-4 and 6-18 remain in the application, with claims 11-18 standing as withdrawn. Independent claim 2 has been amended to incorporate the elements of dependent claim 5 therein, and dependent claim 5 has been cancelled. No claims are presently added.

Claims 1-8 stand rejected under 35 USC §103(a) as being unpatentable over Kotlyar (U.S. Patent No. 6299174) in view of Frantz (U.S. Patent No. 2074085) and Kolm (U.S. Patent No. 3,676,337). Claims 9 and 10 have been indicated as allowable. Claims 11-18 stand withdrawn as directed to a non-elected invention that was subject to a Restriction Requirement. As a preliminary matter, the Applicants note that Examiner referenced Frantz as being U.S. Patent No. 3074085; the Applicants believe that this is a mistake and that U.S. Patent No. 2074085 is the proper patent number for Frantz.

As set forth in further detail below, the Applicants respectfully traverse the rejection of independent claims 1 and 2 on the basis that, even assuming proper combination of Kotlyar, Frantz, and Kolm, one of skill in the art would not be taught to attain a vibrating magnetic separator with a bellows that seals **process contents** from leaking into the atmosphere. The Applicants further traverse the rejection of dependent claim 5, as that rejection now relates to independent claim 2 that has been amended to incorporate the elements of dependent claim 5 therein, on the basis that neither Kotlyar, Frantz, nor Kolm suggest a bellows having at least two plies and one of skill in the art would not be taught to include a bellows having at least two plies based upon knowledge available in the art at the

time of the instant invention. The Applicants further submit that the instant claims are in condition for allowance, and respectfully request rejoinder of claims 11-18 on the basis that claims 11-18 each require the elements of either claim 1 or claim 2, both of which are in condition for allowance.

Traversal of 35 USC §103(a) Rejections of Independent Claims 1 and 2 Over Kotlyar, Frantz, and Kolm

As set forth above, the Applicants respectfully submit that one of skill in the art would not be taught to attain a vibrating magnetic separator with a bellows that seals **process contents** from leaking into the atmosphere based upon the combined teachings of Kotlyar, Frantz, and Kolm.

To explain, independent claims 1 and 2 claim a vibrating magnetic separator that, among other elements, contains a pressure retaining flexible bellows to seal process contents from leaking to the atmosphere. More specifically, as set forth in paragraph (0035) on page 7 of the original application as filed, the flexible bellows performs the function of sealing processed materials in the separator. Such function of the bellows **clearly correlates to structure** of the magnetic separator; for the bellows to seal process contents from the atmosphere, and for the bellows to seal the processed materials inside the separator, **it necessarily follows** that the space immediately sealed by the bellows contains or possibly contains process contents or processed materials.

While the Applicants appreciate that some of the claim language at issue is functional language, the MPEP clearly proscribes that a functional limitation must be

evaluated for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. See MPEP 2173.05(g). Therefore, the Examiner **cannot** ignore the language in the instant claims that explains the function of the bellows and the relationship of the bellows relative to the process contents when considering independent claim 1 as a whole, especially because such claimed function clearly correlates to structure of the apparatus.

Kotlyar is the only reference cited to support the instant rejections that teaches a bellows. The Applicants respectfully submit that the bellows of Kotlyer does not seal "process contents" from the atmosphere. Rather, based upon the representation in Figure 2 and description in column 6, lines 4-20 of Kotlyer, it appears that the bellows only connects a sealing ring (16) to an annular cover (42) in the apparatus taught therein. Further, Kotlyar indicates that the bellows is preferably filled with oil, thus providing additional support for the Applicants' position that the bellows does not seal "process contents" from the outside atmosphere. Rather, by containing oil, it is clear that the purpose of the bellows in Kotlyar is to protect and lubricate a mechanical diode assembly that is contained therein. There are no teachings whatsoever in Kotlyar that would suggest to one of skill in the art to employ a bellows within the separators of Frantz and Kolm in a manner that would seal the process contents or processed materials from leaking into the atmosphere. In the wake of *KSR v. Teleflex*, the Applicants arguments are ultimately directed to the fact that the bellows claimed in independent claim 1 is not used for its known function in the art (which known function is represented by the teachings of Kotlyar and

which known function is clearly different from the function of the bellows claimed in the instant independent claim 1).

In view of the foregoing, the Applicants respectfully submit that independent claim 1, as well as the claims that depend therefrom, is both novel and non-obvious over the combined teachings of Kotlyar, Frantz, and Kolm such that these claims are in condition for allowance, which allowance is respectfully requested.

Traversal of 35 USC §103(a) Rejections of Claim 5 Over Kotlyar, Frantz, and Kolm, as Those Rejections Now Apply to Independent Claim 2 as Amended

As set forth above, the Applicants traverse the rejection of dependent claim 5, as that rejection now relates to independent claim 2 that has been amended to incorporate the elements of dependent claim 5 therein, on the basis that neither Kotlyar, Frantz, nor Kolm disclose a bellows having at least two plies, and there are no teachings in Kotlyar, Frantz, or Kolm to suggest a bellows with at least two plies.

To summarize the relevant standards that the Examiner must apply in performing an obviousness analysis of the present claims, 35 U.S.C. §103 forbids issuance of a patent when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). As the Examiner is aware, the question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences

between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). See also *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. at 1734, 82 USPQ2d at 1391 (2007). Further, it remains a fundamental tenet of the obviousness analysis that reference(s) relied upon to establish an obviousness rejection must teach or suggest each and every feature of a claim. In particular, MPEP § 2143.03 requires the "consideration" of all words in a claim in an obviousness determination. However, to render a claim unpatentable, the Examiner must do more than merely "consider" each and every feature of the claim. In particular, the asserted reference(s) must also teach or suggest each and every claim feature. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (to establish prima facie obviousness of a claimed invention, all the claim features must be taught or suggested by the prior art). Indeed, a proper obviousness determination requires that an Examiner make "a searching comparison of the claimed invention - including all its limitations - with the teaching of the prior art." (Emphasis added) See *Ex parte Wada and Murphy*, Appeal 2007-3733, (citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995)). This is supplemented by MPEP § 904, which states that the Examiner's search "should cover the invention as described and claimed." These principles remain unchanged by the decision in *KSR Int'l Co. v. Teleflex Inc.* Thus, it remains fundamental that to establish a *prima facie* case of obviousness of a claim, **prior art references, after combination, must still teach or suggest all of the claim elements.**

Relative to the rejections of dependent claim 5, as now applied to independent claim 2, it was noted above that Kotlyar is the only reference that teaches a bellows. Referring to the teachings of Kotlyar, there is nothing contained therein that suggests **a bellows having at least two plies**, as now claimed in independent claim 2. While the Examiner has referenced column 4, line 20 to column 5, line 26 and column 5, line 63 to column 6, line 13 as teaching a flexible bellows having at least two plies and failure detection means, no such disclosure is contained in these sections of Kotlyar or in the complete disclosure of Kotlyar in general. Further, the Applicants respectfully submit that one of skill in the art, based upon the teachings of Kotlyar, would have no reason to include more than one ply in the bellows taught therein.

While the Examiner may be inclined to take the position that including multiple plies in a bellow is not a significant advance worthy of patent protection, there are clear purposes for providing bellows having at least two plies in the context of the instant invention that go beyond obvious reasons for doing so. A bellows having multiple plies is shown in Figure 10 of the instant application. Referring to paragraph (0097) on page 19 of the original application as filed, a multi-ply metal bellows allows the integrity of the bellows to be tested continuously for failure. In one embodiment, as shown in Figure 10, the walls of the multi-ply bellows are concentric and a pressure-sensing chamber 57 as shown in Figure 10 is created between the innermost and outermost plies 58 and 59 of the bellows. This chamber can be evacuated by means of the valve 60 that has been connected to a vacuum pump (not shown). The pressure in the chamber 57 can then be read directly from the pressure

instrument 39. Such features, structures, or capabilities are not taught in any way by Kotlyar or any of the other references cited by the Examiner, and there are no teachings in the art in general to provide a bellows in accordance with independent claim 2 as amended that contains a bellows having at least two plies.

In view of the foregoing, the Applicants respectfully submit that independent claim 2, as well as the claims that depend therefrom, is both novel and non-obvious over the combined teachings of Kotlyar, Frantz, and Kolm such that these claims are in condition for allowance, which allowance is respectfully requested.

Rejoinder of Dependent Claims 11-18

The Applicants respectfully submit that in view of the allowability of claims 1-10, the Applicants are entitled to rejoinder of withdrawn claims 11-18. Referring to MPEP §821.04b:

Where claims directed to a product and to a process of making and/or using the product are presented in the same application, applicant may be called upon under 35 U.S.C. 121 to elect claims to either the product or a process. See MPEP § 806.05(f) and § 806.05(h). The claims to the nonelected invention will be withdrawn from further consideration under 37 CFR 1.142. See MPEP § 821 through § 821.03. However, if applicant elects a claim(s) directed to a product which is subsequently found allowable, withdrawn process claims which depend from or otherwise require all the limitations of an allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must depend from or otherwise require all the limitations of an allowable product claim for that process invention to be rejoined. Upon rejoinder of claims directed to a previously nonelected process invention, the restriction requirement between the elected product and rejoined process(es) will be withdrawn.

As applied to the current claims, claims 1-10 each claim a vibrating magnetic separator (claims 9 and 10 are more particularly directed to a magnetic separator apparatus), while dependent claims 11-18 each represent a process of using the separator that is claimed in either claim 1 or claim 2 (depending upon the particular claim). The instant circumstances are directly on point to the situation addressed by MPEP §821.04b. Specifically, claims 11-18 are each directed to a non-elected process invention that depends from or otherwise requires all the elements of an allowable product claim (i.e., either claim 1 or claim 2) such that the Applicants are entitled to rejoinder of the process invention claimed in claims 11-18, and Applicants respectfully request such rejoinder.

In view of the foregoing, the Applicants respectfully submit that claims 1-10 are in condition for allowance, and that the Applicants are entitled to rejoinder of withdrawn claims 11-18 such that claims 1-18 are in condition for allowance, which allowance is respectfully requested

This Amendment is timely filed such that it is believed that no fees are presently due. However, the Commissioner is hereby authorized to charge any additional fees or credit any overpayment to our Deposit Account No. 08-2789.

Respectfully submitted,

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